

CLAIMS

What is claimed is:

1. A wireless communications device, comprising:
 - indirectly-read memory that is not volatile;
 - data stored in the indirectly-read memory;
 - an addressable volatile memory coupled to the indirectly-read memory;
 - a first controller coupled to the indirectly-read memory and the addressable volatile memory;
 - logic coupled to the first controller wherein the logic and the first controller are configured to transfer the data from the indirectly-read memory to the addressable volatile memory;
 - a wireless communications device circuit;
 - a second controller coupled to the volatile memory and the wireless communications device circuit and configured to control the wireless communications device circuit based upon the data stored in the volatile addressable memory.
2. The wireless communications device of claim 1, wherein the indirectly read memory is clocked serial memory.
3. The wireless communications device of claim 1, wherein the indirectly read memory is clocked parallel memory.
4. The wireless communications device of claim 1, wherein the indirectly read memory is indexed addressable memory

5. The wireless communications device of claim 1, wherein the indirectly read memory is addressable, serially interfaced memory.

6. The wireless communications device of claim 1, wherein the volatile memory is dynamic random access memory or static random access memory and wherein the serial memory is chosen from the set of serial memory consisting of MultiMediaCard, SmartMedia Card, SD Card and Memory Stick.

7. The wireless communications device of claim 1, wherein the first controller with logic transfers only a portion of the data stored in the indirectly-read memory to the volatile memory and wherein as the mobile communications device requires additional data stored in the serial memory but not transferred to the volatile memory, the first processor will cause the memory interface controller with memory interface logic to transfer the required data from the serial memory to the volatile memory.

8. The wireless communications device of claim 1, comprising:
a read only memory that contains boot code; and
volatile memory, wherein when the wireless communications device is powered on, the boot code is executed and the first controller determines whether indirectly-read memory is connected to the wireless communications device and wherein if the indirectly read memory is connected to the wireless communications device, the first controller with logic transfers data stored in the indirectly read memory to the volatile memory.

9. The wireless communications device of claim 1, wherein the volatile memory is the wireless communications device circuit

10. The wireless communications device of claim 1, wherein the indirectly read memory comprises NAND Flash.

11. The wireless communications device of claim 1, wherein the first controller and the second controller are coupled to a processor.

12. The wireless communications device of claim 1, wherein the first controller and the second controller are coupled to a microprocessor.

13. The wireless communications device of claim 1, wherein the first controller and the second controller are coupled to a microcontroller.

14. The wireless communications device of claim 1, wherein the first controller and the second controller are a single controller.

15. The wireless communications device of claim 14, wherein the single controller is a processor.

16. The wireless communications device of claim 14, wherein the single controller is a microprocessor.

17. The wireless communications device of claim 14, wherein the single processor is microcontroller.

18. The wireless communications device of claim 1, wherein the data stored in the indirectly-read memory is data representing non-critical operations.

19. The wireless communications device of claim 1, wherein the data stored in the indirectly-read memory is data representing critical operations.

20. The wireless communications device of claim 19, wherein the data representing critical operations is an operating system.

21. The wireless communications device of claim 19, wherein the data representing critical operations are calibration parameters.

22. The wireless communications device of claim 19, wherein the data representing critical operations is an application program that is critical to the operation of the wireless device.

23. The wireless communications device of claim 18, wherein the data representing non-critical operation is user interface information.

24. The wireless communications device of claim 18, wherein the data representing non-critical operations is a recent call list.

25. The wireless communications device of claim 18, wherein the data representing non-critical operations are display settings.

26. The wireless communications device of claim 18, wherein the data representing non-critical operations are roaming preferences.

27. The wireless communications device of claim 18, wherein the data representing non-critical operations are ringer preferences.

28. The wireless communications device of claim 18, wherein the data representing non-critical operations is an application program that is not critical to the operation of the wireless device.

29. The wireless communications device of claim 18, wherein the data representing non-critical operations is a phone book.

30. The wireless communication device of claim 1, wherein the wireless communication device circuit comprises a power amplifier.

31. The wireless communication device of claim 1, wherein the wireless communication device circuit comprises a user interface.

32. A method for managing a memory in a wireless communication device, comprising the steps of:

sending a start signal to a clocked, non-addressable, non volatile memory from a controller;

transferring data to a volatile, addressable memory;

reading the data from the volatile addressable memory;

controlling a wireless communication device circuit responsive to the data.

33. The method of claim 32, wherein the volatile memory is dynamic random access memory or static random access memory.

34. The method of claim 33 wherein the serial memory is chosen from the set of serial memory consisting of MultiMediaCard, SmartMedia Card, SD Card and Memory Stick.

35. The method of claim 32, further comprising the step of determining whether the serial memory is connected to the portable radio telephone and wherein only if the serial memory is connected to the portable radio telephone then transferring data stored in the serial memory to the volatile memory.

36. The method of claim 35, wherein the volatile memory is dynamic random access memory or static random access memory.

37. The method of claim 36 wherein the serial memory is chosen from the set of serial memory consisting of MultiMediaCard, SmartMedia Card, SD Card and Memory Stick.

38. The method of claim 32, wherein only a portion of the data stored in the serial memory is transferred to volatile memory and wherein the method further comprises the steps of requesting additional data stored in the serial memory but not transferred to the volatile memory and transferring the additional data to volatile memory.

39. A wireless communication device system, comprising:
a portable radio telephone, comprising:

an addressable volatile memory;

a first controller coupled to the addressable memory;

logic coupled to the first controller;

a wireless communications device circuit coupled to the first controller;

and

a second controller coupled to the volatile memory and the wireless communications device circuit and configured to control the wireless communications device circuit based upon the data stored in the volatile addressable memory; and

an accessory, comprising;

indirectly-read memory that is not volatile;

data stored in the indirectly-read memory;

wherein the logic and the first controller are configured to transfer the data from the indirectly-read memory to the addressable volatile memory.

40. The wireless communication device system of claim 39, wherein the first controller the logic separates the address and data read from the serial memory and converts the data from serial to parallel as the data is transferred to the volatile memory.

41. The wireless communication device system of claim 39, wherein the volatile memory is dynamic random access memory or static random access memory and wherein the addressable memory is chosen from the set of serial memory consisting of MultiMediaCard, SmartMedia Card, SD Card and Memory Stick.

42. The wireless communication device system of claim 39, wherein the wireless communication device circuit comprises a power amplifier.

43. The wireless communication device system of claim 39, wherein the wireless communication device circuit comprises a user interface.